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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/839,565 | 04/20/2001 | William McFarland | P 0269521 ATH-025(u) | 1458 |

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BEVER HOFFMAN & HARMS, LLP
TRI-VALLEY OFFICE
1432 CONCANNON BLVD., BLDG. G
LIVERMORE, CA 94550

EXAMINER

ODOM, CURTIS B

ART UNIT PAPER NUMBER

2611

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,565

Applicant(s)

MCFARLAND, WILLIAM

Examiner

Curtis B. Odom

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 8, 9, 12, 13, 15-18, 20, 21, 24, 25 and 80-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5, 8, 9, 12, 13, 15-18, 20, 21, 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 80-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendments filed on 3/16/2006 have been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Nee (previously cited in Office Action 6/14/2005) in view of Li (U. S. Patent No. 6, 141, 353).

Regarding claim 80, van Nee discloses a method of communicating from a first transceiver (Fig. 1, block 11) in a wireless multicarrier system comprising the steps of:

transmitting (column 2, lines 32-50 from the first transceiver a group of symbols using a first particular number of carriers and a first particular symbol rate (data rate) during a first period of time according to Table 1; and

transmitting (column 5, lines 59-67) from the first transceiver another group of symbols using a second particular number of carriers by scaling the number of carriers (column 5, lines 59-67) and a second particular symbol rate by scaling the number of bits per carrier (column 4, lines 29-43) during a subsequent period of time (column 6, lines 19-23),

Art Unit: 2634

wherein at least one of the second particular number of carriers is smaller than the first maximum number of carriers (column 6, lines 10-23),

and further configuring the first transceiver to transmit the another group of symbols using the second particular number of carriers and the second particular symbol rate using control circuitry 15 (column 4, lines 29-43 and column 6, lines 10-23).

Van Nee does not disclose the second particular number of carriers and the second particular symbol rate are identified in a header portion of the group of symbols transmitted at the first particular number of carriers and the first particular symbol rate.

However, Li discloses identifying a subsequent (second) data rate of information to be transmitted in the header portion of a current signal transmitting at a current (first) data rate (column 2, lines 42-54). Therefore, it would have been obvious to one skilled in the art to modify the system of van Nee with the teachings of Li since Li states identification of a subsequent data (symbol) rate reduces processing load at the receiver (column 2, lines 47-51).

Regarding claim 81, van Nee further discloses both the second particular number of carriers and the second particular symbol rate are different than the first particular number of carriers and the first particular symbol rate by varying the transmission rate and scaling the number of carriers (column 5, lines 59-67).

Regarding claim 82 van Nee discloses the second particular number of carriers can be greater than the first particular number of carriers according to Table 1 and the second particular symbol (data) rate can be greater than the first particular symbol rate according to Table 1 after varying the transmission rate and scaling the number of carriers (column 5, lines 31-50).

Allowable Subject Matter

4. Claims 2-5 and 15-18 are allowable over prior art references because related references do not disclose changing the symbol rate and number of carriers by controlling a frequency synthesizer used to clock a divide by N counter, IFFT, and parallel to serial converter. Claims 80-82 are allowable over prior art references because related references do not disclose changing the symbol rate and number of carriers by transmitting a header including the desired symbol rate and number of carriers. Claims 8, 9, 12, 13, 20, 21, 24 and 25 are allowable over prior art references because related references do not disclose controlling a number of carriers and symbol rate by placing zero magnitude signals on the carriers.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2634

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Curtis Odom
May 26, 2006

Phancong Tran

05/24/2006

Primary Examiner KHANH TRAN